Examiner's searches

(FILE 'HOME' ENTERED AT 14:49:49 ON 09 APR 2004)

FILE 'CAPLUS' ENTERED AT 14:49:56 ON 09 APR 2004

L1	4842	S	THIAZOLIDINE
L2	312	S	L1 AND EFFECTS
L3	2	S	(THIAZOLIDINE FUMARATE)
L4	126	S	L1 AND (PRESSURE OR HYPERTENSI?)
L5	19	S	PIOGLITAZONE AND ((DIPEPTIDYL PEPTIDASE) OR DP)

L7	1046	S	(((DIPEPTIDYL PEPTIDASE)(W)(IV)) OR (DP(W)(IV)))
L8	19	S	L7 AND HYPERTENSION
L9	0	S	INCRETIN AND HYPERTENSION
L10	7878	S	INSULIN AND HYPERTENSION
L11	2049	S	L10 AND REVIEW/DT
L12	193	S	L11/TI
L13	7967	S	GLUCOSE AND HYPERTENSION
L14	20	S	L13/TI AND REVIEW/DT

(FILE 'HOME' ENTERED AT 14:49:49 ON 09 APR 2004)

FILE 'CAPLUS' ENTERED AT 14:49:56 ON 09 APR 2004

L1	4842	S	THIAZOLIDINE
L2	312	S	L1 AND EFFECTS
L3	2	S	(THIAZOLIDINE FUMARATE)
L4	126	S	L1 AND (PRESSURE OR HYPERTENSI?)
L5	19	S	PIOGLITAZONE AND ((DIPEPTIDYL PEPTIDASE) OR DP)

FILE 'MEDLINE' ENTERED AT 16:41:57 ON 09 APR 2004
L7 1046 S (((DIPEPTIDYL PEPTIDASE)(W)(IV)) OR (DP(W)(IV)))
L8 19 S L7 AND HYPERTENSION
L9 0 S INCRETIN AND HYPERTENSION
L10 7878 S INSULIN AND HYPERTENSION
L11 2049 S L10 AND REVIEW/DT
L12 193 S L11/TI
L13 7967 S GLUCOSE AND HYPERTENSION
L14 20 S L13/TI AND REVIEW/DT

=> d bib,abs 1-20

L14 ANSWER 1 OF 20 MEDLINE on STN
AN 2003345757 MEDLINE
DN PubMed ID: 12877067
TI Blood **glucose** management and treatment of **hypertension** in people with diabetes.
AU Kawamori Ryuzo; Kinoshita Junichiro
CS Department of Medicine, Metabolism & Endocrinology, Juntendo University School of Medicine.
SO Nippon rinsho. Japanese journal of clinical medicine, (2003 Jul) 61 (7) 1087-92. Ref: 17
Journal code: 0420546. ISSN: 0047-1852.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA Japanese
FS Priority Journals
EM 200309
ED Entered STN: 20030725
Last Updated on STN: 20030926
Entered Medline: 20030925
AB With the increased knowledge obtained from more formal and rigorous clinical trails in recent years on the benefit of more intensive management of blood glucose and blood pressure in preventing or delaying the development and progression of diabetic micro- and macro-angiopathies, the challenges for routine clinical practice have become even greater. The complexity of the condition has also become evident, with realization that control of glucose, lipid and blood pressure levels, are all primary management goals.

L14 ANSWER 2 OF 20 MEDLINE on STN
AN 2002246299 MEDLINE
DN PubMed ID: 11986895
TI Insulin resistance and upper-normal **glucose** levels in **hypertension**: a review.
AU Cubeddu L X; Hoffmann I S
CS Nova Southeastern University, HPD, Florida, USA, and Center for the Detection and Treatment of Silent Cardiovascular Risk Factors (SIL-DETECT), Central University of Venezuela, Caracas, Venezuela.. lcubeddu@nova.edu
SO Journal of human hypertension, (2002 Mar) 16 Suppl 1 S52-5. Ref: 28
Journal code: 8811625. ISSN: 0950-9240.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200207
ED Entered STN: 20020503
Last Updated on STN: 20020724

Entered Medline: 20020723

AB Reduced insulin-mediated glucose disposal, indicative of insulin resistance, has been demonstrated in lean male hypertensives both with the hyperinsulinaemic euglycaemic clamp and the insulin suppression test. In lean hypertensives, insulin resistance was not accompanied by increases in fasting plasma insulin and glucose levels; but with modest hyperglycaemia and hyperinsulinaemia after a glucose load. Population studies (no stratification) reveal that: (1) insulin sensitivities vary widely in normotensives and hypertensives, (2) there are hypertensives and normotensives with similar degrees of insulin resistance, (3) not all hypertensives are insulin resistant, and (4) insulin resistance does not contribute to the blood pressure level of the hypertensive population. In large cross-sectional studies, the clustering of obesity, dyslipidaemia and type 2 diabetes is largely responsible for the observed associations between insulin or insulin resistance and hypertension. Recent studies indicate a role of glucose in blood pressure control. Glucose has been shown to elevate blood pressure in the presence of endothelial dysfunction and glucose values in the upper-normal range have been shown to be associated with increased cardiovascular mortality. Since endothelial dysfunction is present in hypertensives, dyslipidaemic, obese and in glucose intolerant individuals, lowering of high-normal glucose levels becomes a new, additional therapeutic target in the management of these patients. Hyperglycaemia together with endothelial dysfunction may account for the increased incidence of hypertension in obesity and diabetes mellitus. Because of the strong association between insulin resistance, hyperglycaemia and endothelial dysfunction, and the clustering of risk factors in these subjects, we propose the lowering of high normal glucose levels as part of the therapeutic strategy to prevent cardiovascular and metabolic disease.

L14 ANSWER 3 OF 20 MEDLINE on STN
AN 1999372079 MEDLINE
DN PubMed ID: 10443132
TI [Major nutrition-related risk factors of ischemic heart disease: dyslipoproteinemia, obesity, **hypertension, glucose** intolerance].
Az ischaemias szivbetegseg taplalkozassal osszefuggo fo rizikofaktorai: dyslipoproteinaemia, elhizas, hypertonia, glukoz-intolerancia.
AU Pados G
CS IV. Belgyogyaszati Osztaly, Szent Imre Korhaz, Budapest.
SO Orvosi hetilap, (1999 Jul 11) 140 (28) 1563-72. Ref: 50
Journal code: 0376412. ISSN: 0030-6002.
CY Hungary
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW LITERATURE)
LA Hungarian
FS Priority Journals
EM 199908
ED Entered STN: 19990827
Last Updated on STN: 19990827
Entered Medline: 19990817

AB Of the major risk factors of coronary heart disease dyslipoproteinemia, obesity, hypertension, and diabetes are nutrition related and can be considered of metabolic origin. Dyslipoproteinemia affects 2/3 of the adult population. The risk of coronary heart disease can be decreased 2-5 fold by lowering hypercholesterinemia; atherosclerosis in the coronaries may regress and total mortality may decrease. Atherogenic dyslipidemia (i.e. hypertriglyceridaemia, low HDL cholesterol levels, elevated concentrations of small dense LDL) increases the risk as part of the metabolic syndrome. Obesity is already highly prevalent, and it is affecting ever growing proportions of the adult population. Abdominal obesity furthermore predisposes patients to complications. No effective therapy is available for obesity. 3/4 of hypertensive patients are obese

and more than half of them have insulin resistance. By decreasing blood pressure, the risk of stroke decreases by about 40%, that of coronary heart disease by 14-30%. Slimming cures are the most important non-pharmacological way of treating hypertension. 5% of the population has diabetes mellitus, and a further 5% has impaired glucose tolerance. Type 2 diabetes predisposes patients to macrovascular complications. The risk of coronary heart disease can be decreased by controlling diabetes by e.g. metformin.

L14 ANSWER 4 OF 20 MEDLINE on STN
AN 1998199488 MEDLINE
DN PubMed ID: 9538662
TI [Effect of antihypertensive therapy on levels of lipids, lipoproteins and **glucose** in serum of patients with primary **hypertension**].
Oddzialywanie lekow hipotensyjnych na stezenie lipidow, lipoprotein i glukozy w surowicy chorych na pierwotne nadcisnienie tetnicze.
AU Halawa B
CS Katedry i Kliniki Kardiologii A. M. we Wroclawiu.
SO Polski merkuriusz lekarski : organ Polskiego Towarzystwa Lekarskiego, (1997 Feb) 2 (8) 137-40. Ref: 33
Journal code: 9705469. ISSN: 1426-9686.
CY Poland
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA Polish
FS Priority Journals
EM 199805
ED Entered STN: 19980514
Last Updated on STN: 19980514
Entered Medline: 19980507

L14 ANSWER 5 OF 20 MEDLINE on STN
AN 97071503 MEDLINE
DN PubMed ID: 8914428
TI **Hypertension** in the patients with impaired **glucose** tolerance.
AU Hano T; Nishio I
CS Wakayama Medical College, Department of Medicine.
SO Nippon rinsho. Japanese journal of clinical medicine, (1996 Oct) 54 (10) 2687-91. Ref: 24
Journal code: 0420546. ISSN: 0047-1852.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA Japanese
FS Priority Journals
EM 199701
ED Entered STN: 19970219
Last Updated on STN: 19970219
Entered Medline: 19970124
AB Diabetes mellitus is commonly associated with hypertension. Association of diabetes mellitus and hypertension predispose an individual to atherosclerotic cardiovascular disease. Hyperinsulinemia is one of the important candidates to cause hypertension in the patients with diabetes mellitus. Several mechanisms mediated by hyperinsulinemia can be entertained as follows: 1) sodium and water retention, 2) increased sympathetic nerve activity and reduced catecholamine clearance, 3) increased intracellular calcium concentration and reduced magnesium concentration, 4) increased coagulant activity and impaired fibrinolytic activity, 5) impaired endothelium-dependent NO synthesis and release, 6) increased vascular responsiveness for the vasoactive substrates, 7) increased proliferation of vascular smooth muscle cell by activation of

protein kinase C or mediated by insulin and IGF-1 action.

L14 ANSWER 6 OF 20 MEDLINE on STN
AN 96314120 MEDLINE
DN PubMed ID: 8739882
TI **Glucose** and insulin metabolism in **hypertension**.
AU Corry D B; Tuck M L
CS Department of Medicine, UCLA San Fernando Valley Program, USA.
SO American journal of nephrology, (1996) 16 (3) 223-36. Ref: 188
Journal code: 8109361. ISSN: 0250-8095.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199610
ED Entered STN: 19961022
Last Updated on STN: 19961022
Entered Medline: 19961008
AB Individuals with abnormal glucose and insulin metabolism have a higher incidence of hypertension, and recent interest has focused on the fact that patients with untreated essential hypertension have higher than normal plasma insulin concentrations, are resistant to insulin-stimulated glucose uptake and often have accompanying lipid disorders. The pathophysiological significance of these observations lies in the findings that insulin has mitogenic properties and can potentiate vascular smooth muscle growth, thus promoting structural changes in vessels and atherosclerosis. Insulin could also promote high blood pressure via its effect in increasing sodium reabsorption and sympathetic nervous system activity. A variety of therapies is available for treatment of hypertension in patients with metabolic complications. Lifestyle modification is considered to be the initial approach, with weight management the most important component. Although diuretics and beta-blockers have a proven record in reducing morbidity and mortality, they may have adverse effects on glucose, insulin and lipids and should be used with caution in hypertensive subjects with metabolic risks. alpha-adrenergic blockers have favorable effects on lipids and glucose. Calcium antagonists have no adverse effect on glucose or insulin in patients with essential hypertension or diabetic patients with hypertension. ACE inhibitors, on the other hand, have neutral or beneficial effects on glucose, insulin and lipid metabolism, improving insulin sensitivity, insulin secretion, potassium balance and intermediary metabolism. Finally, oral hypoglycemic agents, which improve glucose metabolism and insulin sensitivity, can reduce blood pressure in obese, hypertensive subjects.

L14 ANSWER 7 OF 20 MEDLINE on STN
AN 96014567 MEDLINE
DN PubMed ID: 7554750
TI Insulin resistance, **hypertension** and the insulin-responsive **glucose** transporter, GLUT4.
AU Livingstone C; Dominiczak A F; Campbell I W; Gould G W
SO Clinical science (London, England : 1979), (1995 Aug) 89 (2) 109-16. Ref: 61
Journal code: 7905731. ISSN: 0143-5221.
CY ENGLAND: United Kingdom
DT Editorial
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Priority Journals
EM 199511
ED Entered STN: 19951227

Last Updated on STN: 19951227
Entered Medline: 19951103

L14 ANSWER 8 OF 20 MEDLINE on STN
AN 94273162 MEDLINE
DN PubMed ID: 8004648
TI [Role of **glucose** in determining arterial **hypertension** in type 2 diabetes mellitus: ion hypothesis].
Ruolo del glucosio nel determinismo dell'ipertensione arteriosa del diabete mellito di tipo II: ipotesi ionica.
AU Barbagallo M; Resnick L M; Novo S; Putignano E; Licata G
CS Cattedra di Geriatria e Gerontologica, Universita degli Studi, Palermo.
SO Cardiologia (Rome, Italy), (1993 Nov) 38 (11) 743-8. Ref: 53
Journal code: 8506637. ISSN: 0393-1978.
CY Italy
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA Italian
FS Priority Journals
EM 199407
ED Entered STN: 19940729
Last Updated on STN: 19940729
Entered Medline: 19940721

L14 ANSWER 9 OF 20 MEDLINE on STN
AN 94210738 MEDLINE
DN PubMed ID: 8158864
TI Background of cardiovascular diseases in adult--with special reference to metabolic disorder of **glucose** and **hypertension**.
AU Iimura O
SO Nippon Ronen Igakkai zasshi. Japanese journal of geriatrics, (1994 Jan) 31 (1) 1-9. Ref: 10
Journal code: 7507332. ISSN: 0300-9173.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA Japanese
FS Priority Journals
EM 199405
ED Entered STN: 19940526
Last Updated on STN: 19940526
Entered Medline: 19940518

L14 ANSWER 10 OF 20 MEDLINE on STN
AN 94189590 MEDLINE
DN PubMed ID: 8141167
TI The role of **glucose** in diabetic **hypertension**: effects on intracellular cation metabolism.
AU Barbagallo M; Resnick L M
CS Cardiovascular Center, New York Hospital-Cornell Medical Center, New York.
SO American journal of the medical sciences, (1994 Feb) 307 Suppl 1 S60-5. Ref: 57
Journal code: 0370506. ISSN: 0002-9629.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199404
ED Entered STN: 19940509
Last Updated on STN: 19970203

Entered Medline: 19940428

AB The clinical association of hypertension, obesity, noninsulin-dependent diabetes mellitus (NIDDM), and other cardiovascular risk factors has long been recognized. The recent finding that essential hypertension is also an insulin-resistant state associated with hyperinsulinemia led some authors to attribute a role in mediating this association and in the pathogenesis of hypertension itself to insulin. However, evidence also exists independently of insulin per se that alterations in glucose metabolism in general, and of hyperglycemia in particular, may also contribute to the hypertensive process, especially in the hypertension of diabetes. The authors attempted to understand the relationship between glucose and insulin metabolism, diabetes, and hypertension from a cellular ionic point of view. In vitro it was shown that glucose, in a specific, dose- and time-dependent manner, can directly and coordinately alter intracellular ions, increasing cytosolic free calcium, while suppressing intracellular free magnesium and pH levels. These glucose-induced changes exactly parallel those ionic lesions previously observed in vivo in the fasting hyperglycemia of hypertension associated with NIDDM. These and other data led to the hypothesis that circulating blood glucose, independently of insulin and even at normal levels, is a physiologic determinant of cellular ion homeostasis. Furthermore, the cellular ionic consequences of hyperglycemia may contribute to the increased risk of hypertension and vascular diseases present among subjects with NIDDM, impaired glucose tolerance, or both.

L14 ANSWER 11 OF 20 MEDLINE on STN
AN 92260848 MEDLINE
DN PubMed ID: 1583827
TI [Disorders of **glucose** metabolism and **hypertension** --common etio-pathogenetic factors?].
Zaburzenia metabolizmu glukozy a nadcisnienie tetnicze wspolne szlaki etiopatogenetyczne?.
AU Ryczak E; Hanzlik J
CS I Katedry i Kliniki Chorob Wewnetrznych Akademii Medycznej, Lublinie.
SO Kardiologia polska, (1992) 36 (2) 115-8. Ref: 34
Journal code: 0376352. ISSN: 0022-9032.
CY Poland
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA Polish
FS Priority Journals
EM 199206
ED Entered STN: 19920626
Last Updated on STN: 19920626
Entered Medline: 19920616

L14 ANSWER 12 OF 20 MEDLINE on STN
AN 92162238 MEDLINE
DN PubMed ID: 1789948
TI **Glucose**, insulin, and insulin resistance as biochemical predictors of **hypertension.**
AU Tuck M
CS Section of Endocrinology and Metabolism, Veterans Administration, Medical Center, Sepulveda, CA 91343.
SO American journal of hypertension : journal of the American Society of Hypertension, (1991 Nov) 4 (11) 638S-641S. Ref: 21
Journal code: 8803676. ISSN: 0895-7061.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals

EM 199203
ED Entered STN: 19920417
Last Updated on STN: 19920417
Entered Medline: 19920331
AB Obesity, essential hypertension, and diabetes mellitus share certain metabolic disturbances. The predictive value of disordered glucose metabolism and insulin action for hypertension are discussed. Several studies have examined the relationship between hypertension and glucose metabolism in diverse populations, and tend to indicate a predictive role for insulin and glucose metabolism disturbances in the development of hypertension.

L14 ANSWER 13 OF 20 MEDLINE on STN
AN 91254409 MEDLINE
DN PubMed ID: 2043226
TI **Hypertension** in **glucose** intolerance and diabetes.
AU Jarrett R J
CS Department of Public Health Medicine, United Medical School, Guy's Hospital, London, UK.
SO Journal of internal medicine. Supplement, (1991) 735 85-8. Ref: 29
Journal code: 8912975. ISSN: 0955-7873.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199107
ED Entered STN: 19910802
Last Updated on STN: 19910802
Entered Medline: 19910718
AB In insulin-dependent diabetes mellitus, an excess frequency of raised blood pressure occurs in association with increased urinary albumin excretion. It is not known whether the renal disorder causes the raised blood pressure, or whether the two disorders occur concomitantly. In non-insulin-dependent diabetes mellitus, any excess of raised blood pressure is small or non-existent when adjustments are made for obesity. However, raised blood pressure is found in glucose-intolerant individuals, independent of obesity. Reported associations between albumin excretion and blood pressure in non-insulin-dependent diabetes are inconsistent.

L14 ANSWER 14 OF 20 MEDLINE on STN
AN 91251794 MEDLINE
DN PubMed ID: 2041491
TI **Glucose**-induced or postprandial hyperinsulinemia in mild essential **hypertension**--an underestimated biochemical risk indicator?.
AU Singer P; Baumann R
CS Central Institute for Cardiovascular Research, Academy of Sciences of the GDR, Berlin-Buch.
SO Medical hypotheses, (1991 Feb) 34 (2) 157-64. Ref: 77
Journal code: 7505668. ISSN: 0306-9877.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199107
ED Entered STN: 19910728
Last Updated on STN: 19910728
Entered Medline: 19910708
AB Even if glucose tolerance is normal, a glucose-stimulated or postprandial hyperinsulinemia can frequently be observed in patients with early stages

and mild forms of essential hypertension. Numerous epidemiological, clinical and experimental data suggest that hyperinsulinemia might be an independent risk factor for atherosclerosis which should be paid more attention. It could be hypothesized that, apart from the haemodynamic phenomenon of high blood pressure, the postprandial hyperinsulinemia of patients with mild essential hypertension might be relevant to their cardiovascular risk.

L14 ANSWER 15 OF 20 MEDLINE on STN
AN 90303677 MEDLINE
DN PubMed ID: 2194508
TI Insulinemia and blood pressure. Relationships in patients with primary and secondary **hypertension**, and with or without **glucose** metabolism impairment.
AU Marigliano A; Tedde R; Sechi L A; Pala A; Pisanu G; Pacifico A
CS Institute of Clinica Medica Generale, University of Sassari, Italy.
SO American journal of hypertension : journal of the American Society of Hypertension, (1990 Jul) 3 (7) 521-6. Ref: 33
Journal code: 8803676. ISSN: 0895-7061.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199008
ED Entered STN: 19900921
Last Updated on STN: 19900921
Entered Medline: 19900813
AB In order to investigate the relationships between insulinemia and hypertension, fasting insulinemia has been assessed in 117 subjects: 69 normotensive subjects, 36 with essential hypertension, and 12 with renovascular hypertension, all untreated and newly diagnosed, classified in subgroups (euglycemic nonobese, euglycemic obese, with impaired glucose tolerance and with non-insulin-dependent diabetes mellitus). In the patients with essential hypertension fasting insulinemia was significantly higher than in normotensive subjects (P less than .0005). The patients with secondary hypertension and the normotensive subjects had similar fasting insulinemia values. In each subgroup fasting insulinemia was higher in hypertensive patients than among normotensive subjects (P less than .05). A significant correlation between fasting insulinemia and mean blood pressure has been found in patients with essential hypertension (r = 0.408, P less than .05), but not in patients with renovascular hypertension. Our data suggest a possible direct relationship between fasting insulinemia and blood pressure, especially in obese patients or patients with impaired glucose metabolism, and that increased blood pressure per se is not an insulin resistant state.

L14 ANSWER 16 OF 20 MEDLINE on STN
AN 90086856 MEDLINE
DN PubMed ID: 2688414
TI Role of cellular calcium metabolism in abnormal **glucose** metabolism and diabetic **hypertension**.
AU Levy J; Zemel M B; Sowers J R
CS Division of Endocrinology and Hypertension, Wayne State University, School of Medicine, Detroit, Michigan.
SO American journal of medicine, (1989 Dec 8) 87 (6A) 7S-16S. Ref: 139
Journal code: 0267200. ISSN: 0002-9343.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Abridged Index Medicus Journals; Priority Journals

EM 199001
ED Entered STN: 19900328
Last Updated on STN: 19900328
Entered Medline: 19900117
AB The prevalence of hypertension in patients with non-insulin-dependent diabetes mellitus (NIDDM) is considerably higher than in the non-diabetic population. Insulin resistance may contribute to this increased prevalence. Abnormal cellular calcium (Ca2+) homeostasis may link insulin resistance and high blood pressure in patients with NIDDM. Observations of abnormal cellular Ca2+ homeostasis in animal models of NIDDM and obesity as well as in diabetic patients are consistent with this hypothesis. Abnormalities in cellular Ca2+ homeostasis are also found in hypertensive animals and humans. Alterations in cell membrane phospholipid content and distribution may be the primary cause of abnormal plasma membrane Ca2+ fluxes in patients with NIDDM and hypertension.

L14 ANSWER 17 OF 20 MEDLINE on STN
AN 90086850 MEDLINE
DN PubMed ID: 2688408
TI **Hypertension** and abnormal **glucose** homeostasis.
Possible role of divalent ion metabolism.
AU Resnick L M
CS Cardiovascular Center, New York Hospital-Cornell University Medical Center, New York 10021.
SO American journal of medicine, (1989 Dec 8) 87 (6A) 17S-22S. Ref: 64
Journal code: 0267200. ISSN: 0002-9343.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW LITERATURE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199001
ED Entered STN: 19900328
Last Updated on STN: 19970203
Entered Medline: 19900117
AB Recent epidemiologic and clinical evidence emphasizes the association of hypertension, peripheral insulin resistance, hyperinsulinemia, and/or frank diabetes mellitus. The underlying basis for this clinical association remains unknown, and much attention has been focused on a possible role for hyperinsulinemia in these processes. However, evidence also suggests direct hypotensive effects of insulin. It is therefore unclear to what extent hyperinsulinemia contributes to, rather than merely reflects, these multiple metabolic abnormalities. Recent research links both hypertension and diabetes to common defects in calcium and magnesium metabolism, at least in part described by increased cytosolic free calcium, suppressed intracellular free magnesium, and their associated intracellular and hormonal alterations. Thus, hypertension, peripheral insulin resistance, and hyperinsulinemia may be different clinical manifestations of a common underlying cellular defect in divalent ion metabolism.

L14 ANSWER 18 OF 20 MEDLINE on STN
AN 89301755 MEDLINE
DN PubMed ID: 2662932
TI The deadly quartet. Upper-body obesity, **glucose** intolerance, hypertriglyceridemia, and **hypertension**.
AU Kaplan N M
CS Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas 75235-9030.
SO Archives of internal medicine, (1989 Jul) 149 (7) 1514-20. Ref: 76
Journal code: 0372440. ISSN: 0003-9926.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 198908
ED Entered STN: 19900309
Last Updated on STN: 19900309
Entered Medline: 19890810
AB The contribution of obesity to cardiovascular risk has not been adequately appreciated because of a failure to recognize the involvement of upper-body predominance of body weight with hypertension, diabetes, and hypertriglyceridemia even in the absence of significant overall obesity. This article examines the evidence that upper-body obesity, as usually induced by caloric excess in the presence of androgens, mediates these problems by way of hyperinsulinemia. Because of these interrelationships, there is a need to identify and prevent upper-body obesity or, failing that, to provide therapies that will control the associated problems without aggravating hyperinsulinemia.

L14 ANSWER 19 OF 20 MEDLINE on STN
AN 88217094 MEDLINE
DN PubMed ID: 3285251
TI Impaired **glucose** utilization in essential **hypertension**
.
AU Anonymous
SO Nutrition reviews, (1988 Apr) 46 (4) 155-6. Ref: 13
Journal code: 0376405. ISSN: 0029-6643.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 198806
ED Entered STN: 19900308
Last Updated on STN: 19900308
Entered Medline: 19880613

L14 ANSWER 20 OF 20 MEDLINE on STN
AN 81214682 MEDLINE
DN PubMed ID: 7016786
TI Intestinal **glucose** and sodium transport and its relation to **hypertension.**
AU Caspary W F
SO International journal of obesity, (1981) 5 suppl 1 39-43. Ref: 14
Journal code: 7703240. ISSN: 0307-0565.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LA English
FS Priority Journals
EM 198108
ED Entered STN: 19900316
Last Updated on STN: 20000303
Entered Medline: 19810820
AB Final carbohydrate digestion by brush disaccharidases is closely linked to the transport of the resulting monosaccharides. A bifunctional carrier operates within the brush-border membrane of intestinal mucosal epithelial cells translocating glucologues and sodium due to a down-hill Na+ -gradient. Inhibition of final carbohydrate digestion by an inhibitor of a-glucoside-hydrolase activity results in reduction of glucose absorption from sucrose and even more marked inhibition of Na+ and water absorption. Modulation of the kinetic of carbohydrate absorption may be important in the control of post-prandial hyperglycemia of the diabetic, but no

evidence exists that retardation of Na+ -absorption may be of importance in the hypertensive patient.

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=> s incretin and (blood pressure)
           392 INCRETIN
            77 INCRETINS
           427 INCRETIN
                 (INCRETIN OR INCRETINS)


       1128566 BLOOD

          1159 BLOODS
       1128682 BLOOD
                 (BLOOD OR BLOODS)
       1059183 PRESSURE
        160503 PRESSURES
       1120220 PRESSURE
                 (PRESSURE OR PRESSURES)
         91388 BLOOD PRESSURE
                 (BLOOD(W)PRESSURE)
L3           3 INCRETIN AND (BLOOD PRESSURE)

=> d bib,abs 1-3

L3   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
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Full Text | More References

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AN   2003:314477  CAPLUS
DN   139:63650
TI   Glucagon-like peptide-1-responsive catecholamine neurons in the area
     postrema link peripheral glucagon-like peptide-1 with central autonomic
     control sites
AU   Yamamoto, Hiroshi; Kishi, Toshiro; Lee, Charlotte E.; Choi, Brian J.;
     Fang, Hui; Hollenberg, Anthony N.; Drucker, Daniel J.; Elmquist, Joel K.
CS   Department of Medicine and Division of Endocrinology, Beth Israel
     Deaconess Medical Center, Harvard Medical School, Boston, MA, 02215, USA
SO   Journal of Neuroscience (2003), 23(7), 2939-2946
     CODEN: JNRSDS; ISSN: 0270-6474
PB   Society for Neuroscience
DT   Journal
LA   English
AB   Glucagon-like peptide-1 (GLP-1) released from the gut is an incretin
     that stimulates insulin secretion.  GLP-1 is also a brain neuropeptide
     that has diverse central actions, including inhibition of food and water
     intake, gastric emptying, and stimulation of neuroendocrine responses
     characteristic of visceral illness.  Both i.v. and intracerebroventricular
     administration of GLP-1 receptor (GLP-1R) agonists increase blood
     pressure and heart rate and induce Fos-like immunoreactivity (Fos-IR) in
     autonomic regulatory sites in the rat brain.  The area postrema (AP) is a
     circumventricular organ and has been implicated in processing visceral
     sensory information.  GLP-1Rs are densely expressed in the AP, and
     peripheral GLP-1R agonists induce Fos-IR in AP neurons to a greater degree
     than intracerebroventricular administration.  Because the AP lacks a
     blood-brain barrier, the authors hypothesized that the AP is a key site
     for peripheral GLP-1 to activate central autonomic regulatory sites.  In
     this study, the authors found that many tyrosine hydroxylase (TH)-contg.
     neurons in the AP expressed GLP-1Rs and Fos-IR after i.v. GLP-1R agonists.
     Furthermore, i.v. but, not intracerebroventricular, GLP-1R agonists
     induced TH transcription in the AP in vivo.  In addn., GLP-1R agonists
     directly activated TH transcription in an in vitro cell system.  Finally,
     the authors found that GLP-1-responsive TH neurons in the AP innervate
     autonomic control sites, including the parabrachial nucleus, nucleus of
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solitary tract, and ventrolateral medulla. These findings suggest that catecholamine neurons in the AP link peripheral GLP-1 and central autonomic control sites that mediate the diverse neuroendocrine and autonomic actions of peripheral GLP-1.

RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

AN 2002:519876 CAPLUS
DN 137:211177
TI Glucagon-like peptide-1 receptor stimulation increases **blood pressure** and heart rate and activates autonomic regulatory neurons
AU Yamamoto, Hiroshi; Lee, Charlotte E.; Marcus, Jacob N.; Williams, Todd D.; Overton, J. Michael; Lopez, Marisol E.; Hollenberg, Anthony N.; Baggio, Laurie; Saper, Clifford B.; Drucker, Daniel J.; Elmquist, Joel K.
CS Department of Medicine and Division of Endocrinology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA
SO Journal of Clinical Investigation (2002), 110(1), 43-52
CODEN: JCINAO; ISSN: 0021-9738
PB American Society for Clinical Investigation
DT Journal
LA English
AB Glucagon-like peptide-1 (GLP-1) released from the gut functions as an **incretin** that stimulates insulin secretion. GLP-1 is also a brain neuropeptide that controls feeding and drinking behavior and gastric emptying and elicits neuroendocrine responses including development of conditioned taste aversion. Although GLP-1 receptor (GLP-1R) agonists are under development for the treatment of diabetes, GLP-1 administration may increase **blood pressure** and heart rate in vivo. The authors report that centrally and peripherally administered GLP-1R agonists dose-dependently increased **blood pressure** and heart rate. GLP-1R activation induced c-fos expression in the adrenal medulla and neurons in autonomic control sites in the rat brain, including medullary catecholamine neurons providing input to sympathetic preganglionic neurons. Furthermore, GLP-1R agonists rapidly activated tyrosine hydroxylase transcription in brainstem catecholamine neurons. These findings suggest that the central GLP-1 system represents a regulator of sympathetic outflow leading to downstream activation of cardiovascular responses in vivo.

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

AN 1997:560439 CAPLUS
DN 127:200333
TI Cardiovascular and pancreatic endocrine responses to glucagon-like peptide-1(7-36) amide in the conscious calf
AU Edwards, C. M. B.; Edwards, A. V.; Bloom, S. R.
CS Department of Medicine, Royal Postgraduate Medical School, Hommersmith Hospital, London, W12 ONN, UK
SO Experimental Physiology (1997), 82(4), 709-716
CODEN: EXPHEZ; ISSN: 0958-0670
PB Cambridge University Press
DT Journal
LA English
AB I.v. infusions of glucagon-like peptide-1(7-36) amide (GLP-1; 35 pmol min-1 kg-1 for 10 min) produced a significant rise in mean heart rate, without significant change in mean aortic **blood pressure**, together

with a significant rise in mean arterial plasma insulin, but not in plasma pancreatic glucagon or pancreatic polypeptide concn., in conscious calves given exogenous glucose (30-60 μmol min-1 kg-1 I.V.). The insulinotropic effect was eliminated in the presence of exogenous amino acids (0.03 mmol min-1 kg-1 I.V.). It was not affected predictably by blocking the synthesis of nitric oxide or by the simultaneous administration of the established **incretin** factor gastrin-releasing peptide (GRP). Whereas GLP-1 produced a statistically significant rise in plasma insulin concn. in these animals, it was much less effective than GRP in this respect, when given by continuous I.V. infusion.

=>

FILE 'MEDLINE' ENTERED AT 00:16:13 ON 09 APR 2004

L4 1 S HEYMANN, E?/AU AND (DIPEPTIDYL PEPTIDASE)/TI AND (COAGULATION
L5 1685 S (SUBSTANCE P) AND PRESSURE
L6 50 S (SUBSTANCE P) (5A) (BLOOD PRESSURE)

Sub P → ↕ on BP.

=> **d bib,abs 7,10,17,22,23,27**

L6 ANSWER 7 OF 50 MEDLINE on STN

Full Text | Citing References

AN 97191192 MEDLINE
DN PubMed ID: 9039150
TI Role of **substance P** in **blood pressure** regulation in salt-dependent experimental hypertension.
AU Kohlmann O Jr; Cesaretti M L; Ginoza M; Tavares A; Zanella M T; Ribeiro A B; Ramos O L; Leeman S E; Gavras I; Gavras H
CS Nephrology Division, Federal University of Sao Paulo, Brazil.
SO Hypertension, (1997 Jan) 29 (1 Pt 2) 506-9.
Journal code: 7906255. ISSN: 0194-911X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199703
ED Entered STN: 19970321
Last Updated on STN: 19970321
Entered Medline: 19970313
AB The participation of substance P in the pathogenesis of five models of experimental hypertension, ie, DOCA-salt, subtotal nephrectomy, one-kidney-one clip renovascular, two-kidney-one clip renovascular, and spontaneous hypertension, was evaluated via an acute infusion of a newly synthesized potent, specific nonpeptide antagonist of substance P at the NK-1 receptor, the agent CP 96,345. In conscious unrestrained rats, CP 96,345 induced significant and sustained increases in mean arterial pressure of DOCA-salt, subtotal nephrectomy, and one-kidney-one clip renovascular hypertensive rats but only small and nonsignificant changes in blood pressure of two-kidney-one clip renovascular and spontaneously hypertensive rats. CP 96,345 had no effect on the blood pressure of sham-treated controls and Wistar-Kyoto rats. This NK-1 receptor antagonist did not significantly affect the heart rate of any experimental model studied. The data suggest that endogenous substance P may act as a partial counterregulatory mechanism against vasoconstriction in models of salt-dependent hypertension.

L6 ANSWER 10 OF 50 MEDLINE on STN

Full Text | Citing References

AN 96433461 MEDLINE
DN PubMed ID: 8836448
TI Contribution of hemodynamic variables to the lowering of **blood pressure** by **substance P** in the anesthetized rat.
AU Hancock J C; Hoover D B; Orcutt R H; Smith T W
CS Department of Pharmacology, James H. Quillen College of Medicine, East Tennessee State University, Johnson City 37614, USA.
SO Archives internationales de pharmacodynamie et de therapie, (1995 Nov-Dec) 330 (3) 288-96.
Journal code: 0405353. ISSN: 0301-4533.
CY Belgium
DT Journal; Article; (JOURNAL ARTICLE)
LA English

FS Priority Journals
EM 199701
ED Entered STN: 19970219
Last Updated on STN: 19970219
Entered Medline: 19970124
AB The radioactive microsphere technique was used to determine the contribution of acute changes in systemic hemodynamic variables to the lowering of **blood pressure** caused by **substance P** in rats anesthetized with urethane. Infusion of 0.74 nmol/kg/min of **substance P** caused a decrease of **blood pressure**, cardiac output, stroke volume and blood flow to most tissues. Total and regional vascular resistances were not affected. Heart rate was increased. These results suggest that the lowering of **blood pressure** caused by **substance P** occurs as a result of the decreased stroke volume and cardiac output. The most likely explanation for the decreased stroke volume is a decreased venous return. Several studies have shown that substance P has a direct effect to dilate peripheral arteries. Since substance P dilates arteries, one would expect a decrease of peripheral vascular resistance. The results of this study suggest, however, that counter-regulatory processes, elicited in response to the vasodilatation and direct effects of substance P on sympathetic ganglia to increase the sympathetic nervous system activity, offset the direct effect of substance P on arteries that would otherwise cause a decrease of peripheral vascular resistance.

L6 ANSWER 17 OF 50 MEDLINE on STN

Full Text | More References

AN 93086758 MEDLINE
DN PubMed ID: 1280788
TI Central **substance P** increased **blood pressure**, heart rate and splanchnic nerve activity in anaesthetized rats without impairment of the baroreflex regulation.
AU Brattstrom A; Seidenbecher T
CS Institute of Physiology, Medical School of Magdeburg, Germany.
SO Neuropeptides, (1992 Oct) 23 (2) 81-6.
Journal code: 8103156. ISSN: 0143-4179.
CY SCOTLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199301
ED Entered STN: 19930129
Last Updated on STN: 19960129
Entered Medline: 19930106
AB In anaesthetized rats the baroreflex was checked before and 15 min after i.c.v. administration of 10 micrograms SP. The baroreflex was checked indirectly by relating both the reflex prolongation in heart period (inter-beat-interval: IBI) and the reflex inhibition of SNA to a pharmacologically induced BP rise. After i.c.v. administration of SP (n = 10) the resting values of the BP increased significantly from 73 +/- 16 mm Hg to 86 +/- 9 mm Hg (diastolic pressure) and from 98 +/- 20 mm Hg to 113 +/- 14 mm Hg (systolic pressure) whilst in the control group (n = 14) the BP remained constant (63 +/- 9 vs 63 +/- 7 mm Hg diastolic pressure and 106 +/- 12 vs 106 +/- 9 mm Hg systolic pressure). In the experimental group the resting value in IBI was shortened significantly from 218 +/- 40 ms to 167 +/- 28 ms (controls: 218 +/- 22 ms vs 218 +/- 18 ms) and the SNA (estimated in arbitrary units) rose significantly by about 50% in relation to the reference period before i.c.v. SP (3.31 +/- 0.11 vs 6.27 +/- 0.17 arbitrary units per IBI). In contrast, the baroreflex behaved similarly before and after any treatment, i.e. both the reflex prolongation in IBI (1.34 +/- 0.75 vs 1.39 +/- 0.95 ms/mm Hg) and the reflex inhibition of SNA (0.0312 +/- 0.01 vs 0.0555 +/- 0.015 arbitrary units/mm Hg) caused by that

pharmacologically induced BP rise were comparable before and after i.c.v. SP. (ABSTRACT TRUNCATED AT 250 WORDS)

L6 ANSWER 22 OF 50 MEDLINE on STN

Full Text | Other References

AN 92060624 MEDLINE
DN PubMed ID: 1719891
TI The role of **substance P** in regulation of **blood pressure** and hypertension.
AU Chen J; Gao J P; Xu C T; Zhu G Q; Liu Y
CS Peking Union Medical College, Beijing, China 100005.
SO Annals of the New York Academy of Sciences, (1991) 632 413-4.
Journal code: 7506858. ISSN: 0077-8923.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199112
ED Entered STN: 19920124
Last Updated on STN: 19960129
Entered Medline: 19911218

L6 ANSWER 23 OF 50 MEDLINE on STN

Full Text | Other References

AN 91123639 MEDLINE
DN PubMed ID: 1704026
TI The influence of food temperature on postprandial **blood pressure** reduction and its relation to **substance-P** in healthy elderly subjects.
AU Kuipers H M; Jansen R W; Peeters T L; Hoefnagels W H
CS Department of Geriatric Medicine, University Hospital Nijmegen, The Netherlands.
SO Journal of the American Geriatrics Society, (1991 Feb) 39 (2) 181-4.
Journal code: 7503062. ISSN: 0002-8614.
CY United States
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LA English
FS Priority Journals
EM 199103
ED Entered STN: 19910405
Last Updated on STN: 19960129
Entered Medline: 19910313
AB Blood pressure (BP) in the elderly may decrease after a meal or oral glucose loading. The mechanism of this phenomenon is still unclear. In addition, the effect of the temperature of a meal on postprandial BP is unknown. However, it has been suggested that vasoactive gastrointestinal peptides are involved in the etiology of postprandial BP reduction. Therefore, we studied the effects of a cold and a warm glucose solution on BP, heart rate, plasma glucose, insulin, and substance-P levels in 15 healthy elderly subjects with a mean age of 74 +/- 3 (SD) years. With an interval of at least 2 days, a warm (50 degrees C) and a cold (5 degrees C) solution (75 g glucose/300 mL water) were given in random order. After the cold glucose loading mean arterial pressure increased by a maximum of 3.9 +/- 1.3 mmHg (P less than 0.01). In contrast, BP decreased after the warm solution by a maximum of 8.0 +/- 1.1 mmHg (P less than 0.001). Neither test had an influence on plasma substance-P levels. Our data suggest that postprandial blood pressure reduction in the elderly is dependent on food temperature. Substance-P does not seem to play a role in this phenomenon.

L6 ANSWER 27 OF 50 MEDLINE on STN

Full Text | Cited References

AN 89389240 MEDLINE
DN PubMed ID: 2476885
TI The influence of **substance P** on oviductal, duodenal and **blood pressure** in the anaesthetized domestic hen.
AU De Saedeleer V; Wechsung E; Houvenaghel A
CS Laboratory of Veterinary Physiology, University of Antwerp, State University Centre, Belgium.
SO Veterinary research communications, (1989) 13 (3) 183-91.
Journal code: 8100520. ISSN: 0165-7380.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198910
ED Entered STN: 19900309
Last Updated on STN: 19960129
Entered Medline: 19891025
AB In 13 anaesthetized hens in the peak phase of their first laying year the influence of intravenously injected substance P (SP), 1-10 micrograms/animal, on oviductal pressure, duodenal pressure, blood pressure and heart rate has been studied within 5 h of oviposition. The neuropeptide induced a significant pressure increase in the different segments of the oviduct (infundibulum, magnum, isthmus, uterus and vagina) as well as in the duodenum. Blood pressure revealed a distinct biphasic response: a short period of hypotension accompanied by a tachycardia and a more pronounced and sustained hypertension, inducing a subsequent bradycardia. The complexity of the observed effects demonstrates the overall impact of intravenously administered SP on the anaesthetized hen.

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     (FILE 'HOME' ENTERED AT 23:59:34 ON 08 APR 2004)

     FILE 'CAPLUS' ENTERED AT 23:59:51 ON 08 APR 2004
L1          1472 S (DIPEPTIDYL PEPTIDASE IV) OR DP(W)IV
L2            17 S L1 AND (BLOOD PRESSURE)
L3             3 S INCRETIN AND (BLOOD PRESSURE)

     FILE 'MEDLINE' ENTERED AT 00:16:13 ON 09 APR 2004
L4             1 S HEYMANN, E?/AU AND (DIPEPTIDYL PEPTIDASE)/TI AND (COAGULATION
L5          1685 S (SUBSTANCE P) AND PRESSURE
L6            50 S (SUBSTANCE P) (5A) (BLOOD PRESSURE)

=> d bib,abs 32,40,47,48,50

L6   ANSWER 32 OF 50     MEDLINE on STN
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Full Text | More References

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AN   87272576     MEDLINE
DN   PubMed ID: 2440525
TI   Blood pressure modulation by substance P in the rat nucleus
     tractus solitarius.
AU   Kubo T; Kihara M
SO   Brain research, (1987 Jun 16) 413 (2) 379-83.
     Journal code: 0045503. ISSN: 0006-8993.
CY   Netherlands
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   198709
ED   Entered STN: 19900305
     Last Updated on STN: 19950206
     Entered Medline: 19870918
AB   Substance P in a dose of 0.1-10 ng injected into the nucleus tractus
     solitarii (NTS) of the rat caused hypotension, bradycardia and apnea
     whereas a dose of 100 ng led to no response.  A substance P antagonist
     injected into the NTS abolished the cardiovascular responses to substance
     P.  The antagonist alone increased blood pressure and heart rate.  The
     data suggest a role for substance P in the cardiovascular regulation by
     the NTS.

L6   ANSWER 40 OF 50     MEDLINE on STN
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Full Text | More References

```
AN   84071007     MEDLINE
DN   PubMed ID: 6196796
TI   Action of substance P on the blood pressure of spontaneously
     hypertensive rats in dependence on age.
AU   Roske I; Oehme P
SO   Die Pharmazie, (1983 Sep) 38 (9) 626-7.
     Journal code: 9800766. ISSN: 0031-7144.
CY   GERMANY, EAST: German Democratic Republic
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   198401
ED   Entered STN: 19900319
     Last Updated on STN: 19900319
     Entered Medline: 19840127

L6   ANSWER 47 OF 50     MEDLINE on STN
```

Full Text | Citing References

AN 82020480 MEDLINE
DN PubMed ID: 7282383
TI Effects of a **substance P**-analogue on **blood pressure** and avoidance learning of rats with spontaneous hypertension.
AU Hecht K; Oehme P; Poppei M; Hecht T; Moritz V; Hilse H
SO Acta physiologica et pharmacologica Bulgarica, (1980) 6 (3) 60-5.
Journal code: 7512568. ISSN: 0323-9950.
CY Bulgaria
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198111
ED Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19811118
AB A shortened and modified eledoisin-hexapeptide sequence (Lys-Phe-Ile-Gly-Leu-MetNH2) was tested for their action on avoidance learning and blood pressure of rats with spontaneous hypertension (SH-rats) and intact Wistar rats. Both groups were 10, 14, and 26 weeks of age. Disorders of avoidance learning and elevation of blood pressure were likely to aggravate along with growing age of SH-rat. The used eledoisin-hexapeptide sequence is related to the essential C-terminal pentapeptide sequence of Substance P (SP). After injection of the used hexapeptide at doses of 250 microgram/kg intraperitoneally disorders in avoidance learning were completely eliminated from ten-week SH-rats or conditionally for SH-rats aged 14 and 26 weeks. Elevated blood pressure in SH-rats aged 26 weeks was reduced by the hexapeptide from 220 Torr to approximately 190 Torr. Blood pressure in SH-rats aged 14 weeks, originally about 180 Torr, was almost unaffected by the hexapeptide. Blood pressure went up from about 150 Torr to 190 in ten-week-old Sh-rats. A hypothesis was made about the mode of action of Substance P and related peptides.

L6 ANSWER 48 OF 50 MEDLINE on STN

Full Text | Citing References

AN 82015770 MEDLINE
DN PubMed ID: 6169097
TI Action of **substance P** and an analogue on **blood pressure** and avoidance learning in rats with spontaneous hypertension (SHR).
AU Oehme P; Hilse H; Hecht K; Poppei M; Moritz V; Thu M; Scheer E
SO Die Pharmazie, (1981) 36 (7) 502-5.
Journal code: 9800766. ISSN: 0031-7144.
CY GERMANY, EAST: German Democratic Republic
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198111
ED Entered STN: 19900316
Last Updated on STN: 19950206
Entered Medline: 19811122
AB Substance P (SP) and an analogue (Lys-Phe-Ile-Gly-Leu-MetNH2 = EH) were tested in acute experiments on the blood pressure in the intact rat anaesthetized with urethane. A biphasic response, consisting of an initial depressor, followed by a pressor component, was seen. In low concentrations, SP decreases blood pressure, in medium concentrations SP produces a pronounced biphasic response, in high concentrations SP produces only hypertensive reactions. In chronic experiments, SP-peptides act also in different directions. After EH, disorders in avoidance learning were completely eliminated from 10 weeks old spontaneously hypertensive rats (SHR) or conditionally from SHR age 14 or 26 weeks.

Elevated blood pressure in SHR aged 26 weeks was reduced by EH. Blood pressure in SHR aged 14 weeks was almost unaffected by EH and blood pressure went up in ten weeks old SHR. SP had a weaker action in comparison with EH. These results are in agreement with the hypothesis proposed by Oehme and co-workers [11-13] that SP can act as a regulatory peptide (="regulide").

L6 ANSWER 50 OF 50 MEDLINE on STN

Full Text | Cited References

AN 70059424 MEDLINE
DN PubMed ID: 4243217
TI Comparative study of the effects of **substance P** on **blood pressure**, salivatory functions and intestinal motility.
AU Lembeck F; Hettich R
SO Naunyn-Schmiedebergs Archiv fur Pharmakologie, (1969) 265 (3) 216-24.
Journal code: 0326263.
CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197001
ED Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19700130

1 MEDLINE on STN

Full Text | Links References

AN 84140001 MEDLINE
DN PubMed ID: 6199552
TI [Has **dipeptidyl peptidase** IV an effect on blood pressure and **coagulation**?].
Beeinflusst Dipeptidylpeptidase IV Blutdruck und Gerinnung?.
AU **Heymann E**; Mentlein R
SO Klinische Wochenschrift, (1984 Jan 2) 62 (1) 2-10. Ref: 44
Journal code: 2985205R. ISSN: 0023-2173.
CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LA German
FS Priority Journals
EM 198404
ED Entered STN: 19900319
Last Updated on STN: 20000303
Entered Medline: 19840424
AB Dipeptidyl peptidase IV is a very specific protease that attracts growing scientific interest during the last few years. The enzyme has been purified to homogeneity from various human tissues. Histochemically, this protease is found at certain border lines of many organ compartments, as in the proximal tubuli of kidney, in the bile canaliculi of liver, in the capillary endothel, or in the myofibroblasts of placenta. In the blood, especially T-helper lymphocytes contain this enzyme. Dipeptidyl peptidase IV seems to be predestinated for regulatory functions, because it is located on the outer membranes of these cells. The peptidase very specifically degrades substance P. Thus, it is discussed whether the system substance P/dipeptidyl peptidase IV is involved in the regulation of blood pressure, especially in the placenta. On the other hand, the specific attack of the peptidase on the alpha-chain of monomeric fibrin considerably reduces the clotting potency of these molecules. Therefore, dipeptidyl peptidase IV may also be involved in the regulation of blood coagulation in intact vessels, especially because the capillary endothel is lined with this enzyme. The plasma zinc concentration seems to influence the peptidase activity. An increase in plasma zinc stimulates various factors that promote blood clotting.

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY     SESSION
FULL ESTIMATED COST                                         0.21       0.21

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FILE COVERS 1907 - 8 Apr 2004  VOL 140 ISS 15
FILE LAST UPDATED: 7 Apr 2004  (20040407/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s (dipeptidyl peptidase IV) or DP(w)IV
          3452 DIPEPTIDYL
         11102 PEPTIDASE
          4259 PEPTIDASES
         13028 PEPTIDASE
                 (PEPTIDASE OR PEPTIDASES)
        489111 IV
           783 IVS
        489823 IV
                 (IV OR IVS)
          1449 DIPEPTIDYL PEPTIDASE IV
                 (DIPEPTIDYL(W)PEPTIDASE(W)IV)
         18165 DP
           837 DPS
         18915 DP
                 (DP OR DPS)
        489111 IV
           783 IVS
        489823 IV
                 (IV OR IVS)
           166 DP(W)IV
L1         1472 (DIPEPTIDYL PEPTIDASE IV) OR DP(W)IV

=> d kwic

L1   ANSWER 1 OF 1472  CAPLUS  COPYRIGHT 2004 ACS on STN
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```
TI   Glucagon-like Peptide 1 (GLP-1) secretion and plasma dipeptidyl
     peptidase IV (DPP-IV) activity in morbidly obese patients undergoing
     biliopancreatic diversion
AB   . . . GLP-1 may be involved in the pathogenesis of obesity. We
     investigated food-mediated GLP-1 secretion as well as plasma activity of
     dipeptidyl-peptidase IV (DPP-IV), the enzyme responsible for rapid
     inactivation of the circulating peptide, in morbidly obese patients,
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before and after wt. loss. . .

=> **s l1 and (blood pressure)**
1128566 BLOOD
1159 BLOODS
1128682 BLOOD
(BLOOD OR BLOODS)

1059183 PRESSURE

160503 PRESSURES
1120220 PRESSURE
(PRESSURE OR PRESSURES)
91388 BLOOD PRESSURE
(BLOOD(W)PRESSURE)
L2 17 L1 AND (BLOOD PRESSURE)

=> **d bib,abs 1-17**

L2 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Caplus References
AN 2003:737359 CAPLUS
DN 139:240366
TI **Dipeptidyl peptidase IV** inhibitors and their uses for lowering **blood pressure** levels
IN Pospisilik, Andrew J.; Demuth, Hans-Ulrich; Glund, Konrad; Hoffmann, Matthias; McIntosh, Christopher H. S.; Pederson, Ray A.
PA Can.
SO U.S. Pat. Appl. Publ., 38 pp., Cont.-in-part of U. S. Ser. No. 932,546.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003176357	A1	20030918	US 2002-200919	20020723
	US 6303661	B1	20011016	US 1998-155833	19981006
	US 2002006899	A1	20020117	US 2001-932546	20010817
PRAI	US 1998-155833	A2	19981006		
	US 2001-932546	A2	20010817		
	DE 1996-19616486	A	19960425		
	WO 1997-DE820	W	19970424		

OS MARPAT 139:240366
AB The invention provides new uses of DPIV-inhibitors of the invention, and their corresponding pharmaceutically acceptable acid addn. salt forms, for lowering **blood pressure** levels. Compds. of the invention include peptides and peptide-like compds. (prepn. described).

L2 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Caplus References
AN 2003:448157 CAPLUS
DN 138:383447
TI Insights into Dahl salt-sensitive hypertension revealed by temporal patterns of renal medullary gene expression
AU Liang, Mingyu; Yuan, Baozhi; Rute, Elizabeth; Greene, Andrew S.; Olivier, Michael; Cowley, Allen W., Jr.
CS Department of Physiology, Medical College of Wisconsin, Milwaukee, WI, 53226, USA

SO Physiological Genomics (2003), 12(3), 229-237
CODEN: PHGEFP; ISSN: 1094-8341
URL: http://physiolgenomics.physiology.org/cgi/reprint/12/3/229.pdf
PB American Physiological Society
DT Journal; (online computer file)
LA English
AB Dahl salt-sensitive SS and consomic, salt-resistant SS-13BN/Mcw rats possess a highly similar genetic background but exhibit substantial differences in **blood pressure** salt sensitivity. The authors used cDNA microarrays to examine sequential changes of mRNA expression of ~2000 currently known rat genes in the renal medulla (a tissue crit. for long-term **blood pressure** regulation) in SS and SS-13BN/Mcw rats in response to a high-salt diet (16 h, 3 days, or 2 wk). Differentially expressed genes in each between-group comparison were identified based on a threshold detd. exptl. using a ref. distribution that was constructed by comparing rats within the same group. A difference anal. of 54 microarrays identified 50 genes that exhibited the most distinct temporal patterns of expression between SS and SS-13BN/Mcw rats over the entire time course. Thirty of these genes could be linked to the regulation of arterial **blood pressure** or renal injury based on their known involvement in functional pathways such as renal tubular transport, metab. of vasoactive substances, extracellular matrix formation, and apoptosis. Importantly, the majority of the 30 genes exhibited temporal expression patterns that would be expected to lower arterial pressure and reduce renal injury in SS-13BN/Mcw compared with SS rats. The phenotypic impact of the other 20 genes was less clear. These 50 genes are widely distributed on chromosome 13 and several other chromosomes. This suggested that primary genetic defects, although important, are unlikely to be solely responsible for the full manifestation of this type of hypertension and assocd. injury phenotypes. In summary, the results of this study identified a no. of pathways potentially important for the amelioration of hypertension and renal injury in SS-13BN/Mcw rats, and these results generated a series of testable hypotheses related to the role of the renal medulla in the complex mechanism of salt-sensitive hypertension.
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Cited References

AN 2003:395928 CAPLUS
DN 139:99156
TI Chronic renal injury-induced hypertension alters renal NHE3 distribution and abundance
AU Yang, Li E.; Zhong, Huiqin; Leong, Patrick K. K.; Perianayagam, Anjana; Campese, Vito M.; McDonough, Alicia A.
CS Department of Physiology and Biophysics, University of Southern California Keck School of Medicine, Los Angeles, CA, 90089-9142, USA
SO American Journal of Physiology (2003), 284(5, Pt. 2), F1056-F1065
CODEN: AJPHAP; ISSN: 0002-9513
PB American Physiological Society
DT Journal
LA English
AB Renal cortical phenol injection provokes acute sympathetic nervous system-dependent hypertension and a shift of proximal tubule Na+/H+ exchanger isoform 3 (NHE3) and Na+-Pi cotransporter type 2 (NaPi2) to apical microvilli. This study aimed to det. whether proximal tubule (PT) Na+ transporter redistribution persists chronically and whether the pool sizes of renal Na+ transporters are altered. At 5 wk after a 50-μl 10% phenol injection, **blood pressure** is elevated: 154 vs. 113 mmHg after saline injection. Cortical membranes were fractionated into three

"windows" enriched in apical brush border (WI), mixed apical and intermicrovillar cleft (WII), and intracellular membranes (WIII). NHE3 relative distribution in these windows, assessed by immunoblots and expressed as %total, remained shifted to apical from intracellular membranes (WI: 25.3 in phenol vs. 12.7% in saline and WIII: 9.1 in phenol vs. 18.9% in saline). NaPi2 and **dipeptidyl-peptidase IV** also remained shifted to WI, and alk. phosphatase activity increased 100.9 and 51.4% (WII) in phenol-injected membranes. Na+ transporter total abundance [NHE3, NaPi2, thiazide-sensitive Na-Cl cotransporter, bumetanide-sensitive Na-K-2Cl cotransporter, Na-K-ATPase α1- and β1-subunits, and epithelial Na+ channel (ENaC) α- and β-subunits] was profiled by immunoblotting. Only cortical NHE3 abundance was altered, decreasing to 0.56. The results demonstrate that phenol injury provokes a persistent shift of PT NHE3 and NaPi2 to the apical microvilli, along with a 44% decrease in total NHE3, evidence for an escape mechanism that would counteract the redistribution of a larger fraction of NHE3 to the apical surface by normalizing the total amt. of NHE3 in apical membranes.

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

AN 2003:137971 CAPLUS
DN 138:319092
TI Responses of proximal tubule sodium transporters to acute injury-induced hypertension
AU Yang, Li E.; Leong, Patrick K. K.; Ye, Shaohua; Campese, Vito M.; McDonough, Alicia A.
CS Department of Physiology and Biophysics, University of Southern California Keck School of Medicine, Los Angeles, CA, 90089-9142, USA
SO American Journal of Physiology (2003), 284(2, Pt. 2), F313-F322
CODEN: AJPHAP; ISSN: 0002-9513
PB American Physiological Society
DT Journal
LA English
AB Renal injury-induced by phenol injection activates renal sympathetic afferent pathways, increases norepinephrine release from the posterior hypothalamus, activates renal efferent pathways, and provokes a rapid and persistent hypertension. This study aimed to det. whether phenol injury provoked a redistribution of proximal Na+ transporters from internal stores to the apical cell surface mediated by sympathetic activation, a response that could contribute to generation or maintenance of hypertension. Anesthetized rats were cannulated for arterial **blood pressure** tracing and saline infusion and then 50 μl 10% phenol or saline was injected into one renal cortex (n = 7 each). Fifty minutes after injection, kidneys were removed and renal cortex membranes from injected kidneys were fractionated on sorbitol gradients and pooled into 3 windows (WI-WIII) that contained enriched apical brush border (WI); mixed apical, intermicrovillar cleft and dense apical tubules (WII); and intracellular membranes (WIII). Na+ transporter distributions were detd. by immunoblot and expressed as percentage of total in gradient. Acute phenol injury increased **blood pressure** 20-30 mmHg and led to redistribution of Na+/H+ exchanger type 3 (NHE3) out of WIII (from 22.79 ± 4.75 to 10.79 ± 2.01% of total) to WI (13.07 ± 1.97 to 27.15 ± 4.08%), Na+-Pi contransporter 2 out of WII (68.72 ± 1.95 to 59.76 ± 2.21%) into WI (9.5 ± 1.62 to 18.7 ± 1.45%), and a similar realignment of **dipeptidyl-peptidase IV** immunoreactivity and alk. phosphatase activity to WI. Renal denervation before phenol injection prevented the NHE3 redistribution. By confocal microscopy, NHE3 localized to the brush border after phenol injection. The results indicate that phenol injury provokes redistribution of Na+ transporters from

intermicrovillar cleft/intracellular membrane pools to apical membranes assocd. with sympathetic nervous system activation, which may contribute to phenol injury-induced hypertension.
RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References

AN 2002:575264 CAPLUS
DN 137:137278
TI Biological markers and diagnostic tests for angiotensin converting enzyme inhibitor- and vasopeptidase inhibitor-associated angioedema
IN Brown, Nancy J.
PA Vanderbilt University, USA
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002059343	A2	20020801	WO 2001-US45643	20011031
	WO 2002059343	A3	20030116		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2002137120	A1	20020926	US 2001-2593	20011031
	US 6586198	B2	20030701		
	US 2003180828	A1	20030925	US 2003-423714	20030425
PRAI	US 2000-244524P	P	20001031		
	US 2001-2593	A3	20011031		

AB The invention concerns deficiencies in certain physiol. pathways that are linked with ACE or vasopeptidase inhibitor assocd. angioedema. Addnl., detection and/or measurement of **dipeptidyl peptidase IV** (DPP IV) enzyme activity and aminopeptidase P (APP) enzyme activity is a predictor of this risk. The present invention provides biol. markers, diagnostic tests, and pharmaceutical indications that are useful in the diagnosis and treatment of angioedema and in the marketing and safety of certain medications. This ability can be important for the treatment of a subject that is in need of or are taking an angiotensin-converting enzyme (ACE) inhibitor and/or a vasopeptidase inhibitor (combined ACE and neutral endopeptidase (NEP) inhibitor), which are commonly used in the treatment of hypertension (high **blood pressure**), diabetes, and cardiac and renal diseases.

L2 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References

AN 2002:196547 CAPLUS
DN 136:243594
TI The prolyl oligopeptidase family
AU Polgar, L.
CS Institute of Enzymology, Hungarian Academy of Sciences, Budapest, 1518, Hung.
SO Cellular and Molecular Life Sciences (2002), 59(2), 349-362
CODEN: CMLSFI; ISSN: 1420-682X

PB Birkhaeuser Verlag
DT Journal; General Review
LA English
AB A review with 156 refs. A group of serine peptidases, the prolyl oligopeptidase family, cannot hydrolyze peptides contg. more than ~30 residues. This group is unrelated to the classical trypsin and subtilisin families, and includes **dipeptidyl peptidase IV**, acylaminoacyl peptidase, and oligopeptidase B, in addn. to the prototype, prolyl oligopeptidase. The recent crystal structure detn. of prolyl oligopeptidase (80 kDa) has shown that the enzyme contains a peptidase domain with an α/β hydrolase fold, and its catalytic triad is covered by the central tunnel of an unusual 7-bladed β-propeller. This domain operates as a gating filter, excluding large, structured peptides from the active site. The binding mode of substrates and the catalytic mechanism differ from that of the classical serine peptidases in several features. The members of the family are important targets of drug design. Prolyl oligopeptidase is involved in amnesia, depression and **blood pressure** control, **dipeptidyl peptidase IV** in type 2 diabetes, and oligopeptidase B in trypanosomiasis.
RE.CNT 156 THERE ARE 156 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Ref References

AN 2002:51977 CAPLUS
DN 136:96059
TI Use of **dipeptidyl peptidase IV** effectors for lowering **blood pressure** in mammals
IN Pospisilik, Andrew J.; Demuth, Hans-Ulrich; Glund, Konrad; Hoffmann, Matthias; McIntosh, Christopher H. S.; Pederson, Ray A.
PA Can.
SO U.S. Pat. Appl. Publ., 11 pp., Cont.-in-part of U.S. 6,303,661.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002006899	A1	20020117	US 2001-932546	20010817
	US 6303661	B1	20011016	US 1998-155833	19981006
	US 2002110560	A1	20020815	US 2002-117022	20020405
	WO 2003015775	A1	20030227	WO 2002-EP8210	20020723
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003176357	A1	20030918	US 2002-200919	20020723
	NO 2003001574	A	20030603	NO 2003-1574	20030408
PRAI	US 1998-155833	A2	19981006		
	DE 1996-19616486	A	19960425		
	WO 1997-DE820	W	19970424		
	US 2001-932546	A1	20010817		
	WO 2002-EP8210	W	20020723		

AB The invention comprises the use of activity-reducing effectors of

dipeptidyl peptidase (**DP IV**) and **DP IV**-analogous enzyme activity in the blood of a mammal to lower the blood sugar level and the **blood pressure** in mammalian organisms.

L2 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

AN 2001:348431 CAPLUS
DN 135:74637
TI Reference values for plasma **dipeptidyl-peptidase IV** activity and their association with other laboratory parameters
AU Durinx, Christine; Neels, Hugo; Van der Auwera, Jean-Claude; Naelaerts, Kristine; Scharpe, Simon; De Meester, Ingrid
CS Laboratory of Clinical Biochemistry, University of Antwerp, Wilrijk, Belg.
SO Clinical Chemistry and Laboratory Medicine (2001), 39(2), 155-159
CODEN: CCLMFW; ISSN: 1434-6621
PB Walter de Gruyter GmbH & Co. KG
DT Journal
LA English
AB In blood, the exopeptidase **dipeptidyl-peptidase IV** (DPPIV; EC 3.4.14.5) is predominantly present in a sol. form in plasma/serum and as an activation antigen on the membrane of lymphocytes (CD26). It modifies some important biol. active peptides (neuropeptides, chemokines), and a regulatory role for DPPIV/CD26 in immune and endocrine processes has been demonstrated. The aim of this study was to det. ref. values for plasma/serum DPPIV activity and to study the assocn. of this activity with a series of biochem. and hematol. parameters and baseline characteristics such as age, gender, **blood pressure** and body mass index. The authors studied 481 healthy subjects aged between 19 and 61 yr. The group consisted of 213 men and 268 women equally divided between the different categories of age. Among the women, 127 were taking hormone therapy (contraception/hormone replacement) and 141 were not. A multiple regression model shows that DPPIV activity decreases significantly with age. The activity in women is slightly lower than in men. The authors obsd. an important assocn. with liver, muscle and lipid metab.-related parameters. In this model, no significant contribution of body mass index, **blood pressure** or hormone therapy could be stated.
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

AN 2000:182153 CAPLUS
DN 133:87613
TI Chronic disturbances in NO production results in histochemical and subcellular alterations of the rat heart
AU Tribulova, N.; Okruhlicova, L.; Bernatova, I.; Pechanova, O.
CS Institute for Heart Research, Slovak Academy of Sciences, Bratislava, Slovakia
SO Physiological Research (Prague) (2000), 49(1), 77-88
CODEN: PHRSEJ; ISSN: 0862-8408
PB Institute of Physiology, Academy of Sciences of the Czech Republic
DT Journal
LA English
AB The mechanisms and myocardial alterations assocd. with NO-deficient hypertension are still far from clear. The aim of the present study was to focus on the enzyme histochem. and subcellular changes in the heart of L-NAME treated rats, as well as to examine the influence of captopril treatment. Wistar rats were administered either L-NAME (40 mg/kg/day) alone or together with captopril (100 mg/kg/day) for a period of 4 wk. A significant increase of **blood pressure** confirmed the reliability of

the model. The results showed that long-lasting L-NAME administration was accompanied by a decrease of endothelial NO-synthase activity and by a significant local decrease of the following enzyme activities: capillary-related alk. phosphatase, 5'-nucleotidase and ATPase (but not **dipeptidyl peptidase IV**) and cardiomyocyte-related glycogen phosphorylase, succinic dehydrogenase, β-hydroxybutyrate dehydrogenase and ATPases. No activity of these enzymes was found in the scar, whereas a marked increase of alk. phosphatase and **dipeptidyl peptidase IV** activities was found in the foci of fibrotization. Histochem. changes correlated with subcellular changes, which were characterized by 1) apparent fibroblast activation assocd. with interstitial/perivascular fibrosis, 2) heterogeneous population of the normal, hypertrophic and injured cardiomyocytes, 3) enhancement of the atrial granules and their translocation into the sarcolemma, and 4) impairment of capillaries as well as by induction of angiogenesis. Similar alterations were also found in the heart of captopril co-treated rats, despite of the significant suppression of **blood pressure**. The results indicate that NO-deficient hypertension is accompanied by metabolic disturbances and ultrastructural alterations of the heart and these changes are probably not induced by the renin-angiotensin system only.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Other References

DPIV & NPY → ↓ blood pressure ✓

AN 1998:661034 CAPLUS
DN 130:36681
TI Endogenous neuropeptide Y mediates vasoconstriction during endotoxic and hemorrhagic shock
AU Qureshi, Nadeem U.; Dayao, Emmanuel K.; Shirali, Shobha; Zukowska-Grojec, Zofia; Hauser, Gabriel J.
CS Georgetown University Children's Medical Center and Department of Physiology and Biophysics, Division of Pediatric Critical Care and Pulmonary Medicine, Georgetown University, Washington, DC, 20007, USA
SO Regulatory Peptides (1998), 75-76, 215-220
CODEN: REPPDY; ISSN: 0167-0115
PB Elsevier Science B.V.
DT Journal
LA English
AB Neuropeptide Y (1-36), NPY, is a sympathetic vasoconstrictor whose activities in blood vessels is detd. by the presence of vasoconstrictive Y1 receptors and the enzyme **dipeptidyl peptidase IV** (DPPIV), which converts NPY to non-vasoconstrictive peptides. While the role of the NPY system has been established during cold water stress, its role in hypotensive conditions has not; yet, exogenous NPY improves hemodynamics and survival in rats with endotoxic shock. We used a new selective non-peptidergic Y1 receptor antagonist, BIBP-3226, to det. the role of the endogenous NPY/Y1 system in endotoxic shock (induced by i.v. injection of 10 mg/kg of Escherichia coli lipopolysaccharide 0127:B8, LPS) and hemorrhagic shock (bleeding of 15 mL/kg over 1.5 min). Conscious rats received a bolus of BIBP-3226 or the vehicle 5 min before endotoxin challenge or induction of hemorrhage, followed by continuous infusion. Mean arterial pressure (MAP) at 5 min after LPS administration dropped in the control group by 15%, compared to 36% in the BIBP-3226-treated group. Similarly, the hemorrhage-induced drop in MAP in the control group was 32% at 5 min, compared to 53% in the BIBP-treated rats. Plasma NPY levels were unchanged in the endotoxic shock group, but were significantly elevated in the hemorrhagic shock group. BIBP-3226 pretreatment abrogated the increased plasma NPY levels after hemorrhagic shock. Endogenous NPY contributes to **blood pressure** recovery during endotoxic and

hemorrhagic shock.
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References
AN 1994:576001 CAPLUS
DN 121:176001
TI Enzymes of the gonadal renin-angiotensin-system as a marker for decreased reproduction in the rat
AU Treptow, Klaus; Siems, W. E.; Heder, G.
CS Inst. Wirkstofforsch., Berlin, O-1136, Germany
SO Zoologische Jahrbuecher, Abteilung fuer Allgemeine Zoologie und Physiologie der Tiere (1991), 95(1), 13-21
CODEN: ZJZPAY; ISSN: 0044-5185
DT Journal
LA German
AB Male and female Wistar rats were exposed to a chronic hypokinetic stress lasting 6.5 h in the light phase of a natural night-day span or lasting 16.5 h including the complete dark phase, and compared with untreated animals. Stressors were used for 5 days every week for the term of 20 days. Effectiveness of the stressors was characterized by systolic **blood pressure** and by hematocrit value. The activities of angiotensin-converting-enzyme (ACE), leucinaminopeptidase (LAP), and dipeptidyl-aminopeptidase IV (**DP IV**) were examd. in testis, epididymis or ovaries of the animals. In testis and epididymis the activities of ACE and LAP were significantly lowered in correlation to the intensity and duration of stress. In ovaries the activity of ACE was increased whereas the activity of LAP was decreased. The activity of **DP IV** was unchanged in both sexes. ACE and LAP activities are related to some quality parameters of semen. Activities of both enzymes in the gonads are interpreted now as possible markers for the pathogenic influence of stressors on fertilization and on the tissue autonomous renin-angiotensin-system (RAS) of gonads. But until now the biochem. mechanism of the relation of the influence of stress with the change in enzyme activities is a quite open question for both sexes. The results are discussed according to related results reported in the endocrinol. and pathophysiol. literature.

L2 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References
AN 1994:570793 CAPLUS
DN 121:170793
TI Effects of the synthetic glucocorticoid triamcinolone acetonide on vasoactive hydrolases of the human placenta in vitro
AU Hahn, T.; Graf, R.; Oeney, T.; Desoye, G.
CS Department Anatomy, Free University Berlin, Berlin, D-14195, Germany
SO Placenta (1994), 15(4), 377-88
CODEN: PLACDF; ISSN: 0143-4004
DT Journal
LA English
AB Therapy with glucocorticoids during pregnancy is still debated. Previously reported effects of glucocorticoid application in rats resemble certain symptoms of preeclampsia. Therefore, the authors studied in vitro the effects of the synthetic glucocorticoid triamcinolone acetonide sol. (0.1-10 mM) on placental α-glutamyl amino-peptidase, microsomal alanyl aminopeptidase, **dipeptidyl peptidase IV**, acetylcholinesterase and butyrylcholinesterase in purified trophoblast monolayers and villous explants from first trimester and term using bio- and histochem. methods. In term placenta quant. histochem. (microdensitometry) of trophoblast

monolayers revealed an increase of α-glutamyl aminopeptidase and microsomal alanyl aminopeptidase activity up to 149% and 126% resp., after treatment with supraphysiol. doses. In trophoblast monolayers from first trimester, α-glutamyl aminopeptidase activity was not affected, whereas microsomal alanyl aminopeptidase activity increased by 25%. **Dipeptidyl peptidase IV** staining was reduced to 26%. Biochem. measurements of α-glutamyl aminopeptidase and microsomal alanyl aminopeptidase activity in homogenates of cultured villi revealed effects similar to those found by microdensitometry in trophoblast monolayers. In contrast, **dipeptidyl peptidase IV** activity increased in explants of term placenta by 47%. Acetyl- and butyrylcholinesterase activities were reduced in term placental villi by 38% and 40%, resp. The data indicate that glucocorticoids may affect the activity of hydrolases which are thought to be involved in local placental **blood pressure** modulation.

L2 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Cited References

AN 1994:294735 CAPLUS
DN 120:294735
TI Enzyme histochemical evidence for the presence of potential **blood pressure** regulating proteases in cultured villous explants from human first trimester placentae
AU Hahn, Tom; Graf, Renate; Oney, Taylan
CS Dep. Anat., Free Univ. Berlin, Berlin, D-14195, Germany
SO Acta Histochemica (1993), 95(2), 185-92
CODEN: AHISA9; ISSN: 0065-1281
DT Journal
LA English
AB The proteinases **dipeptidyl peptidase IV**, angiotensinase A and microsomal alanyl aminopeptidase are present in the human term placenta where they may be involved in the local modulation of placental **blood pressure**. To establish an in vitro model system to study the significance of these proteinases in disorders related to pregnancy-induced hypertension, the activity of the proteinases was localized histochem. in cultured explants of villi from human 1st trimester placentae. These studies revealed a similar distribution pattern of the activity of the proteinases in cryostat sections of 1st trimester placental villi and in cultured tissue of the same placentae. **Dipeptidyl peptidase IV** and angiotensinase A activity were present in cytotrophoblast cells and **dipeptidyl peptidase IV** activity was found in the syncytiotrophoblasts, resp. Addnl., the activity of the proteinases was visualized in various populations of stromal cells. Comparing the authors' results with former studies, the proteinase activity pattern in 1st trimester placentae was the same as in term placentae. Despite morphol. changes of the tissue after 14 days in culture the localization of the proteinases remained unchanged up to 52 days of culture. Placental explants may serve as a suitable in vitro model for exptl. studies on the role of proteinases in pregnancy-induced hypertension.

L2 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Cited References

AN 1989:523 CAPLUS
DN 110:523
TI Circulatory activity of dopamine-dipeptide compounds
AU Krause, W.; Oehme, P.; Barth, A.; Neubert, K.
CS Inst. Drug Res., Acad. Sci. GDR, Berlin, 1136, Ger. Dem. Rep.
SO Biomedica Biochimica Acta (1988), 47(9), 895-900
CODEN: BBIADT; ISSN: 0232-766X

DT Journal
LA English
AB Three newly synthesized dopamine-dipeptide compds., glycyl-prolyl-dopamide, lysyl-prolyl-dopamide, ε-benzyloxycarboxyl-lysyl-prolyl-dopamide (Z-Lys-Pro-dopamide), hydrolyzable in vivo by **dipeptidyl peptidase IV** (EC 3.4.14.5) were investigated as to their protective activity against hemorrhagic shock in rats. All three compds. increased the survival time of animals, in nearly the same manner as dopamine. They also relaxed blood vessels of the isolated perfused rat kidneys pretreated with phenoxybenzamine. This activity demonstrates a vasodilation via dopaminergic receptors. In the **blood pressure**-increasing activity mediated by the excitation of α-receptors, Gly-Pro-dopamide was less potent than dopamine but affected **blood pressure** about 4 times longer than dopamine. Lys-Pro-dopamide and Z-Lys-Pro-dopamide were nearly equieffective to dopamine.

L2 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References
AN 1984:118196 CAPLUS
DN 100:118196
TI Is **dipeptidyl peptidase IV** involved in the regulation of **blood pressure** and coagulation?
AU Heymann, E.; Mentlein, R.
CS Biochem. Inst. Med., Fak. Kiel, Kiel, D-2300/1, Fed. Rep. Ger.
SO Klinische Wochenschrift (1984), 62(1), 2-10
CODEN: KLWOAZ; ISSN: 0023-2173
DT Journal; General Review
LA German
AB A review with 44 refs.

L2 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References
AN 1983:195473 CAPLUS
DN 98:195473
TI Dipeptidyl peptidase activities in various organs of Wistar rats
AU Goerne, R. C.; Heins, J.; Hilse, H.; Oehme, P.; Barth, A.
CS Inst. Wirkstofforsch., Akad. Wiss. DDR, Berlin, DDR-1136, Ger. Dem. Rep.
SO Pharmazie (1983), 38(2), 112-13
CODEN: PHARAT; ISSN: 0031-7144
DT Journal
LA German
AB With glycyl-prolyl p-nitroanilide as substrate, dipeptidyl peptidase (DP) activity was detd. photometrically in the serum and homogenates of various organs of Wistar rats at pH 7.6 and 5.0. **DP IV**, a serine peptidase, was detd. at pH 7.6, and DP mixed activity (DP MA), which includes several different DPs, was detd. at pH 5.0. Particularly high activities of **DP IV** were found in the kidney, lung, adrenal gland, liver, and aortic arch compared to those in other tissues. However, differences among the DP MA activities of the tissues were smaller. The **DP IV** and DP MA activities in nervous system structures were generally lower than those in other tissues. Among the nervous system tissues, max. **DP IV** activities were found in the spinal ganglion, cerebral cortex, and medulla oblongata, and max. DP MA activities were found in the hypothalamus, cerebellum, and cerebral cortex. The results are discussed with ref. to the participation of these enzymes in peptidergic regulatory mechanisms and possibly in **blood pressure** regulation.

L2 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

AN 1983:123753 CAPLUS
DN 98:123753
TI Studies of **DP-IV**-activities in tissues from WKY and SH rats
AU Goerne, R. C.; Oehme, P.; Barth, A.
CS Inst. Wirkstofforsch., Akad. Wiss. DDR, Berlin, Ger. Dem. Rep.
SO Pharmazie (1982), 37(12), 867-8
CODEN: PHARAT; ISSN: 0031-7144
DT Journal
LA German
AB In 10-wk-old rats with spontaneous hypertension (SH rats) (i.e., at the onset of hypertension), the activity of dipeptidyl peptidase (**DP**) **IV** (I) (1 of enzymes degrading substance P) in the adrenal, liver, and heart was below that of age-matched normal rats; in the medulla oblongata, aorta, and blood serum, I activity was above controls. In 24-wk-old SH rats, I activity in the liver, adrenal, aorta, and serum was above age-matched controls; in the heart and adrenal medulla, the activity was below controls. The changes are discussed in relation to the regulation of substance P levels and **blood pressure** in the SH rats.

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